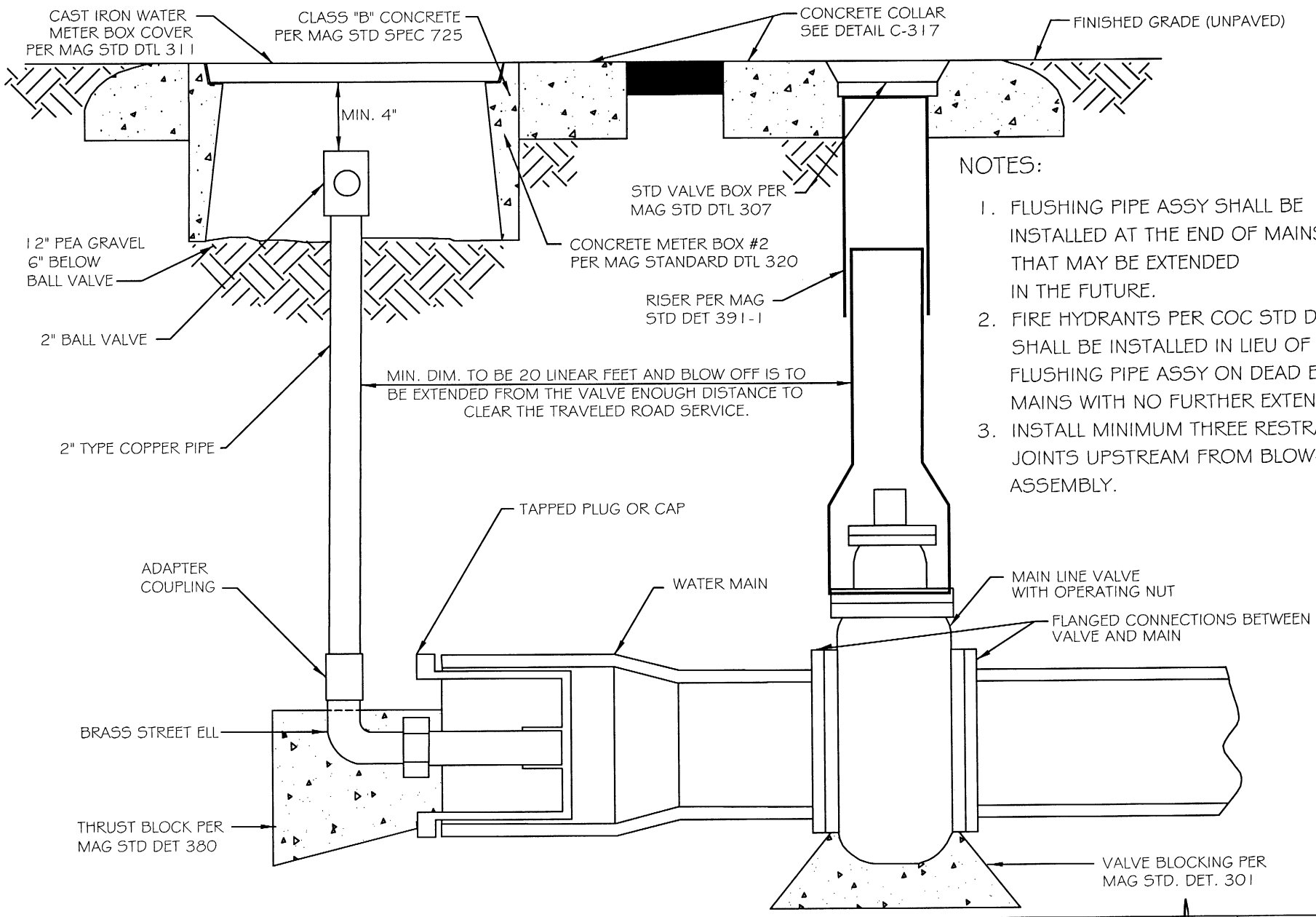
WATER SERIES

C-300 TO C-319



NOTES:

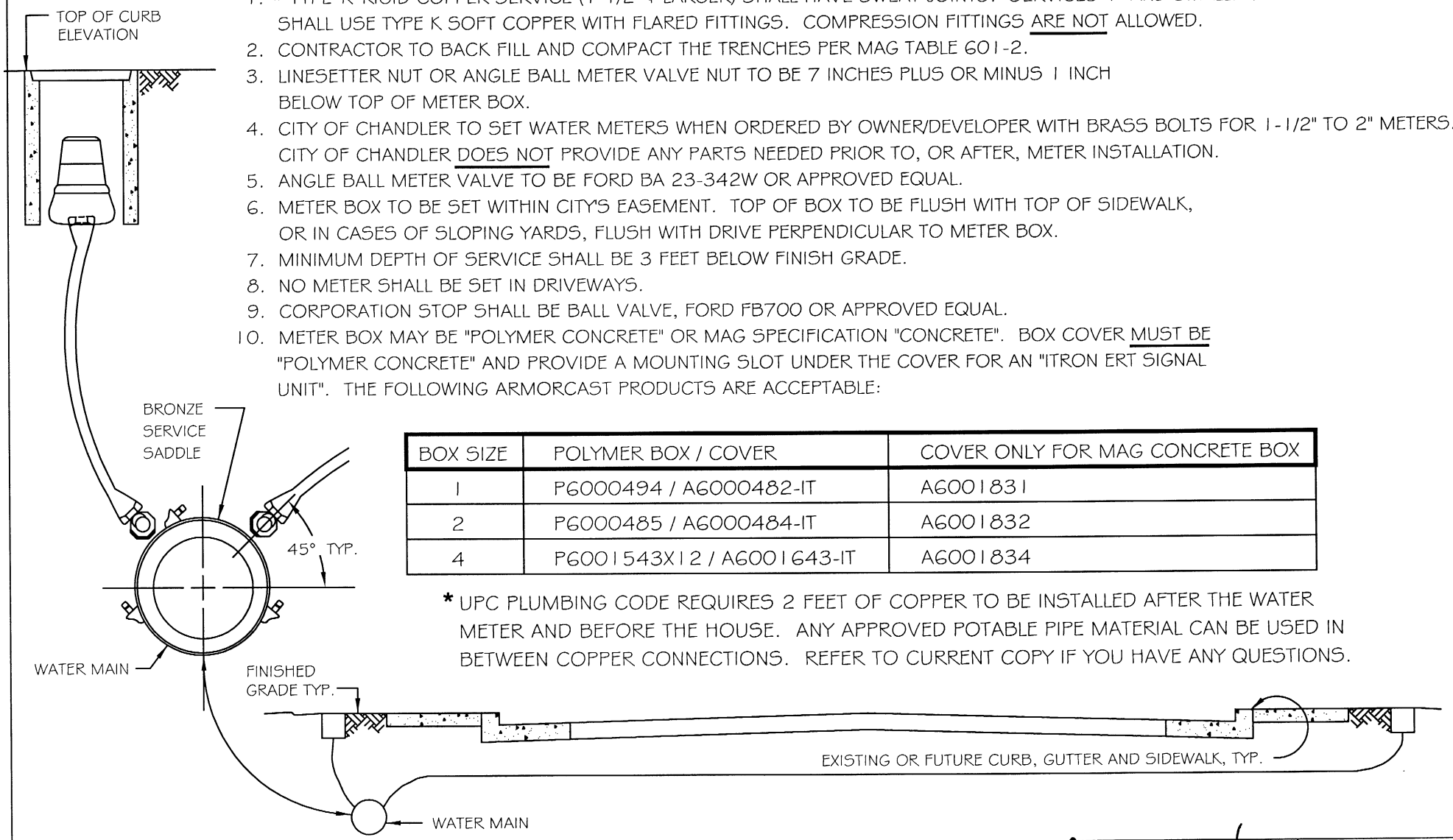
1. FLUSHING PIPE ASSY SHALL BE INSTALLED AT THE END OF MAINS THAT MAY BE EXTENDED IN THE FUTURE.
2. FIRE HYDRANTS PER COC STD DTL C-303 SHALL BE INSTALLED IN LIEU OF FLUSHING PIPE ASSY ON DEAD END MAINS WITH NO FURTHER EXTENSIONS.
3. INSTALL MINIMUM THREE RESTRAINED JOINTS UPSTREAM FROM BLOW-OFF ASSEMBLY.

DETAIL NO. C-300 NTS	CITY OF CHANDLER STANDARD DETAIL	**FLUSHING PIPE ASSEMBLY WITH BALL VALVE**	APPROVED: CITY ENGINEER DATE: January 11, 2002	DETAIL NO. C-300 NTS

CAUTION: BEFORE SERVICES ARE INSTALLED, THE DRIVEWAY LOCATIONS SHOULD BE VERIFIED AND THE SERVICE CONSTRUCTED TO MISS THEM.

NOTES:

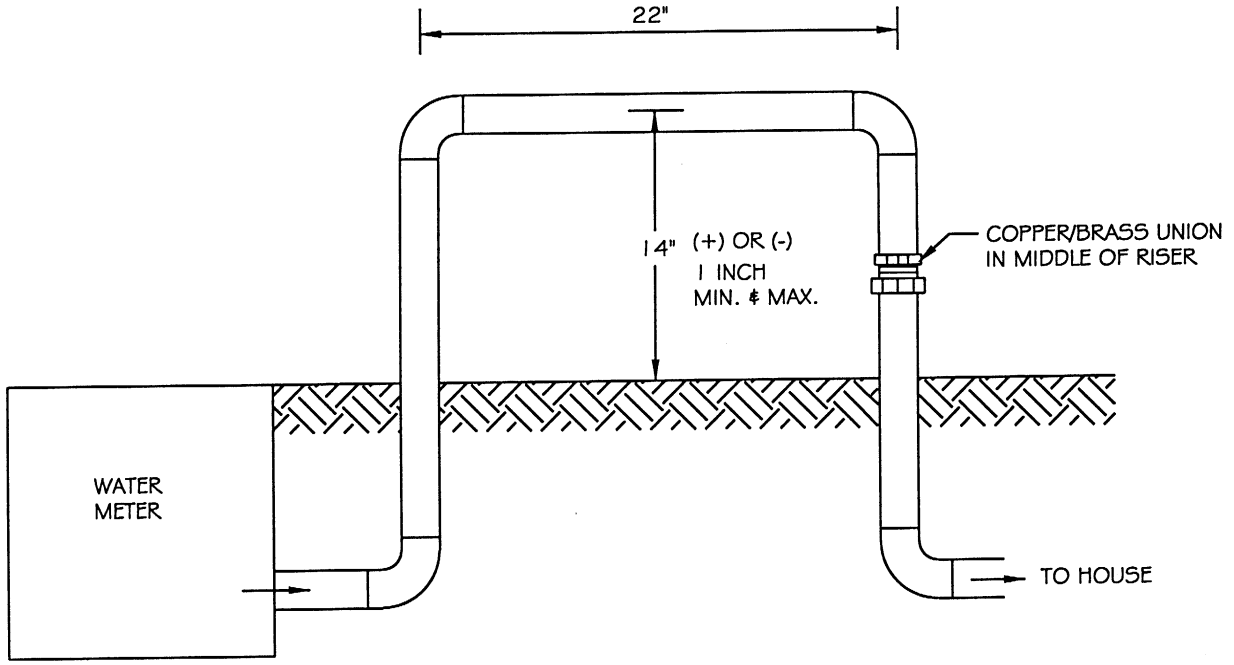
1. * TYPE 'K' RIGID COPPER SERVICE (1-1/2" & LARGER) SHALL HAVE SWEAT JOINTS. SERVICES 1" AND SMALLER SHALL USE TYPE K SOFT COPPER WITH FLARED FITTINGS. COMPRESSION FITTINGS ARE NOT ALLOWED.
2. CONTRACTOR TO BACK FILL AND COMPACT THE TRENCHES PER MAG TABLE 601-2.
3. LINESETTER NUT OR ANGLE BALL METER VALVE NUT TO BE 7 INCHES PLUS OR MINUS 1 INCH BELOW TOP OF METER BOX.
4. CITY OF CHANDLER TO SET WATER METERS WHEN ORDERED BY OWNER/DEVELOPER WITH BRASS BOLTS FOR 1-1/2" TO 2" METERS. CITY OF CHANDLER DOES NOT PROVIDE ANY PARTS NEEDED PRIOR TO, OR AFTER, METER INSTALLATION.
5. ANGLE BALL METER VALVE TO BE FORD BA 23-342W OR APPROVED EQUAL.
6. METER BOX TO BE SET WITHIN CITY'S EASEMENT. TOP OF BOX TO BE FLUSH WITH TOP OF SIDEWALK, OR IN CASES OF SLOPING YARDS, FLUSH WITH DRIVE PERPENDICULAR TO METER BOX.
7. MINIMUM DEPTH OF SERVICE SHALL BE 3 FEET BELOW FINISH GRADE.
8. NO METER SHALL BE SET IN DRIVEWAYS.
9. CORPORATION STOP SHALL BE BALL VALVE, FORD FB700 OR APPROVED EQUAL.
10. METER BOX MAY BE "POLYMER CONCRETE" OR MAG SPECIFICATION "CONCRETE". BOX COVER MUST BE "POLYMER CONCRETE" AND PROVIDE A MOUNTING SLOT UNDER THE COVER FOR AN "ITRON ERT SIGNAL UNIT". THE FOLLOWING ARMORCAST PRODUCTS ARE ACCEPTABLE:

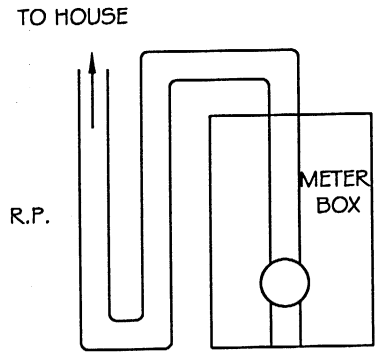


BOX SIZE	POLYMER BOX / COVER	COVER ONLY FOR MAG CONCRETE BOX
1	P6000494 / A6000482-IT	A6001831
2	P6000485 / A6000484-IT	A6001832
4	P6001543X12 / A6001643-IT	A6001834

* UPC PLUMBING CODE REQUIRES 2 FEET OF COPPER TO BE INSTALLED AFTER THE WATER METER AND BEFORE THE HOUSE. ANY APPROVED POTABLE PIPE MATERIAL CAN BE USED IN BETWEEN COPPER CONNECTIONS. REFER TO CURRENT COPY IF YOU HAVE ANY QUESTIONS.

C-301 **REPLACES** **103A**	CITY OF CHANDLER STANDARD DETAIL	**WATER SERVICE INSTALLATION**	APPROVED: Elizabeth Lee Hamilton CITY ENGINEER DATE: January 10, 2002	DETAIL NO. **C-301** NTS





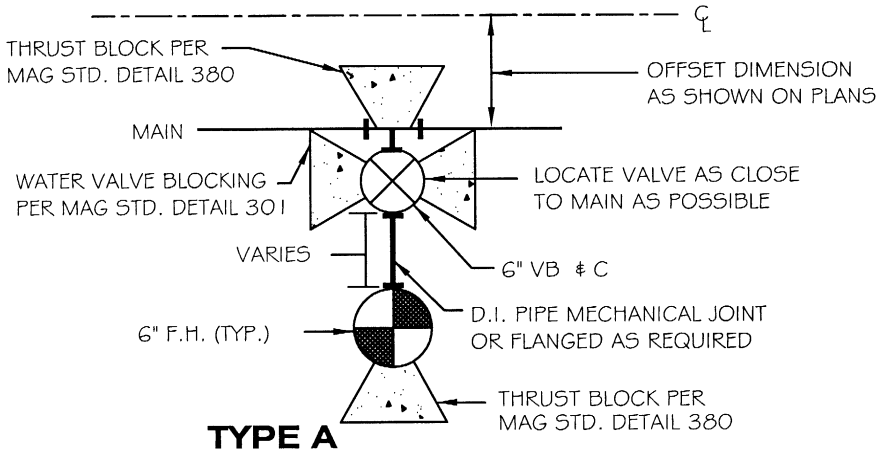
ALTERNATE INSTALLATION

SEE NOTE 8

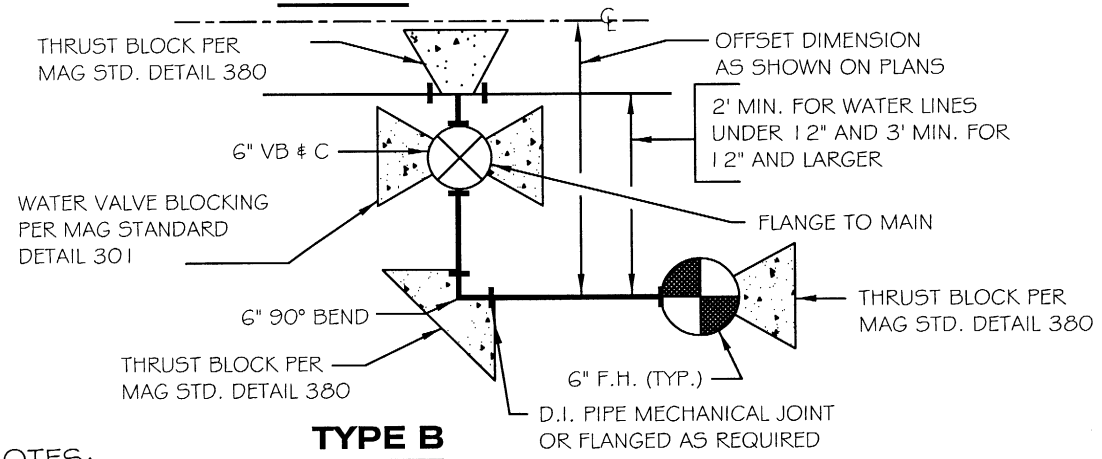
NOTES:

1. ALL PIPE/FITTINGS TO BE TYPE 'K' RIGID COPPER.
2. INSTALL COPPER PIPE LOOP DIRECTLY BEHIND, DOWNSTREAM OF WATER METER/WATER METER BOX.
3. COPPER LOOP TO BE 14 INCHES ABOVE GRADE PLUS OR MINUS ONE INCH.
4. COPPER LOOP TO BE LEVEL MEASURED WITH CONTRACTOR'S BUBBLE LEVEL.
5. TOP OF LOOP TO BE ONE SOLID PIECE OF PIPE. NO COUPLINGS OR JOINTED PIPE.
6. COMPRESSION TYPE FITTINGS ARE NOT ALLOWED.
7. A COPPER/BRASS UNION TO BE INSTALLED IN MIDDLE OF DOWNSTREAM RISER.
8. COPPER LOOP MAY BE INSTALLED ADJACENT TO METER BOX ON A CASE BY CASE BASIS WITH A MAXIMUM OF 24 INCHES OF PIPE EXTENDED UPSTREAM OF COPPER LOOP TO ALLOW COPPER LOOP TO SIT ADJACENT TO METER/WATER BOX.
9. COPPER LOOP LENGTH TO BE 22 INCHES IN LENGTH MEASURED FROM CENTER TO CENTER OF EACH RISER PIPE.
10. THIS DETAIL IS TO BE USED IN CONJUNCTION WITH A RECLAIMED WATER SYSTEM.

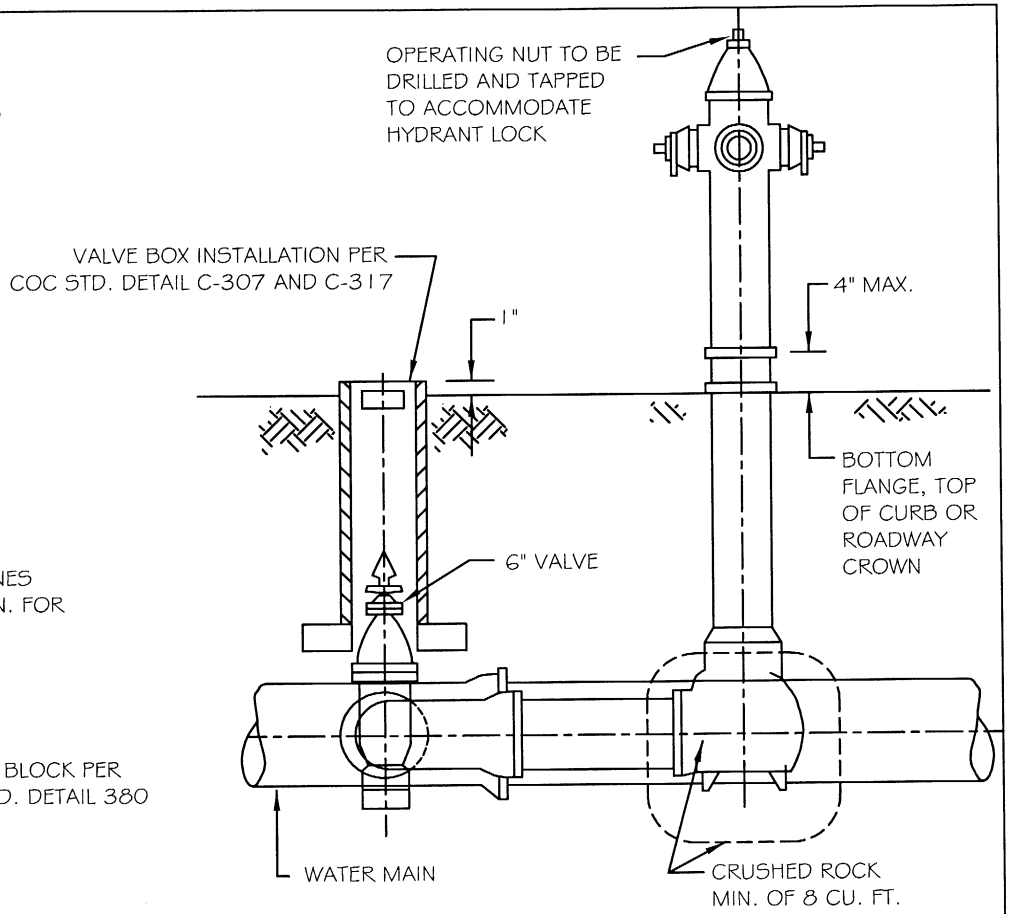
C-302 **REPLACES** **103B**	CITY OF CHANDLER STANDARD DETAIL	**RESIDENTIAL BACKFLOW PREVENTION ASSEMBLY INSTALLATION - 1" OR UNDER**	APPROVED: Bryan D. Patterson CITY ENGINEER DATE: 11-19-99	DETAIL NO. **C-302** NTS



TYPE A



TYPE B



TYPE B INSTALLATION

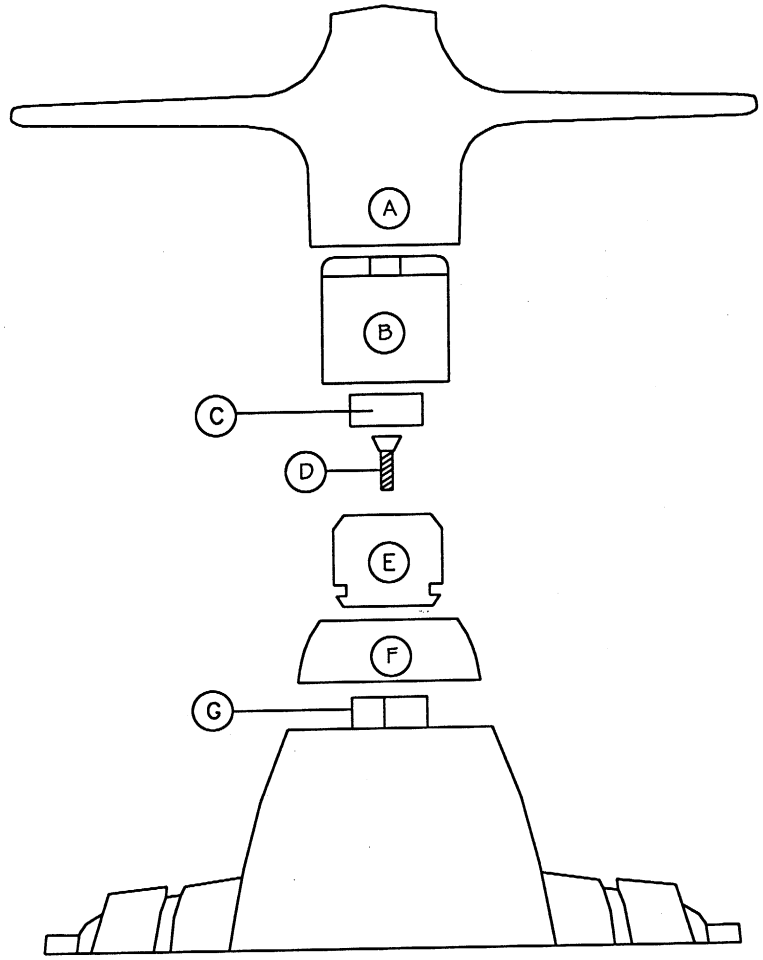
NOTES:

1. FIRE HYDRANT VALVES INCLUDING ALL FITTINGS ⊄ 45° BENDS SHALL BE RESTRAINED TO MAIN LINE TEE BY FLANGES.
2. FIRE HYDRANT WILL BE MUELLER CENTURIAN, CLOW MEDALLION OR WATEROUS PACER.
3. CONNECTIONS WILL BE 2-1/2" N.S. ⊄ 4" N.S. THREADS.
4. INSTALLATION OF HYDRANT WILL INCLUDE INSTALLATION OF REFLECTOR ON ADJACENT STREET(S) PER DETAIL C-306.
5. FIRE HYDRANT TO BE LOCATED A MIN. OF 6' BEHIND FACE OF CURB, AND 18 INCHES BEHIND SIDEWALK, RIGHT OF WAY PERMITTING, AND INSTALLED SIX FEET BEYOND CURB RETURNS FOR HYDRANTS LOCATED AT INTERSECTIONS, PER DETAIL C-305.
6. INSTALL FIRE HYDRANT LOCK PER STANDARD DETAIL C-304 OR DELIVER TO WATER DEPT. AT FINAL INSPECTION.
7. CAP CHAINS TO BE REMOVED AND THREADS GREASED WITH MANUFACTURER APPROVED HYDRANT GREASE.

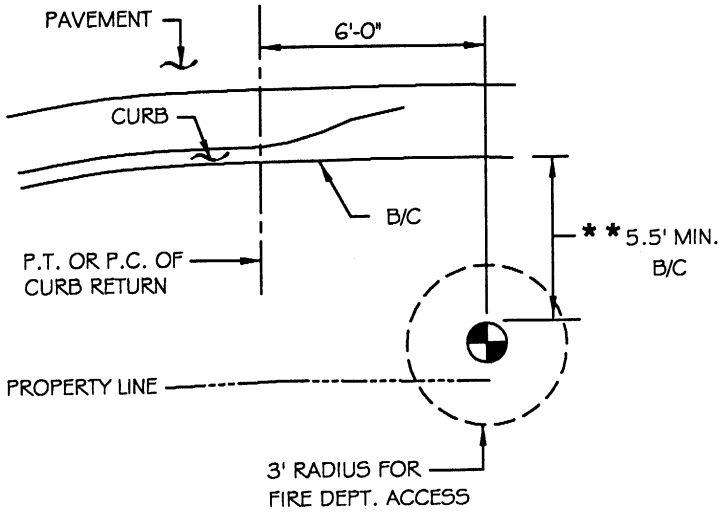
C-303 **REPLACES** **50**	CITY OF CHANDLER STANDARD DETAIL	**FIRE HYDRANT**	APPROVED: CITY ENGINEER DATE: January 11, 2002	DETAIL NO. **C-303** NTS

NOTES:

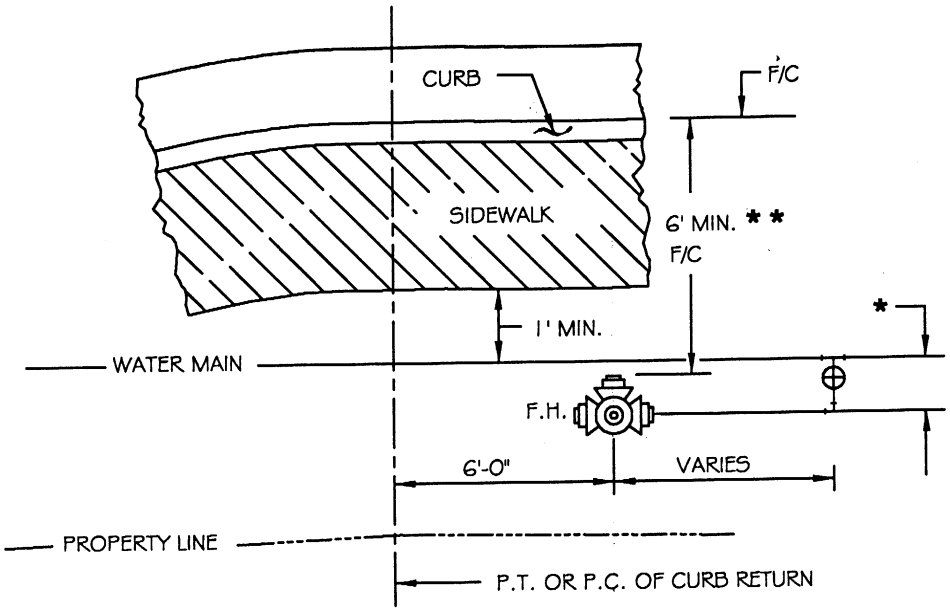
- (A) KEY WRENCH
- (B) SWIVEL HOUSING
- (C) ACTIVATOR LOCK
- (D) RETAINING BOLT
- (E) INNER BARREL
- (F) MATING COLLAR
- (G) HYDRANT OPERATING NUT



C-304 REPLACES 49A	CITY OF CHANDLER STANDARD DETAIL	**FIRE HYDRANT LOCK**	APPROVED: CITY ENGINEER DATE: 11-19-99	DETAIL NO. **C-304** NTS



PARKWAY AREA, NO SIDEWALK



AREA WITH SIDEWALK

NOTES:

1. OBSTRUCTIONS SUCH AS UTILITY POLES, STREET SIGNS, IRRIGATION BOXES, FENCES, ETC., MUST NOT BE PLACED BETWEEN CURB AND HYDRANT.
2. * DIMENSION PER COC STANDARD DETAIL C-303.
3. DIMENSIONS SHOWN ON CONSTRUCTION DRAWINGS SUPERSEDE LOCATIONS SHOWN HERE.
4. ON LOCATIONS IN MIDBLOCK, THE FIRE HYDRANT WILL BE ALIGNED WITH A PROPERTY LINE AND 6' MINIMUM FROM DRIVEWAYS.
5. COC STANDARD DETAIL C-303, TYPE B INSTALLATION SHOWN.
6. ALL FIRE HYDRANTS INSTALLED PER STANDARD DETAIL C-303 WILL BE LOCATED IN ACCORDANCE WITH THIS DETAIL.
7. ** MINIMUM DIMENSION MUST BE SIDEWALK WIDTH PLUS ONE (1) FOOT OR SIX (6) FEET FROM FACE OF CURB, WHICHEVER IS GREATER.
8. IN INDUSTRIAL/COMMERCIAL ZONES A MINIMUM OF 6' FROM DRIVEWAYS MUST BE MAINTAINED WITH VALVE INSTALLED AWAY FROM DRIVEWAY.
9. BOTTOM FLANGE OF FIRE HYDRANT TO BE 2" ABOVE SIDEWALK.

C-305 **REPLACES** **102**	CITY OF CHANDLER STANDARD DETAIL	**LOCATIONS FOR NEW FIRE HYDRANT**	APPROVED: CITY ENGINEER DATE: 11-19-99	DETAIL NO. **C-305** NTS

FIGURE 1
TWO LANE STREET

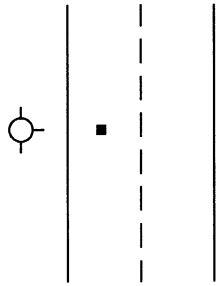


FIGURE 2
MULTI-LANE STREET

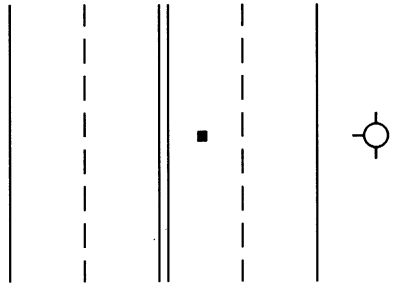


FIGURE 3
TWO LANE STREET AT INTERSECTION

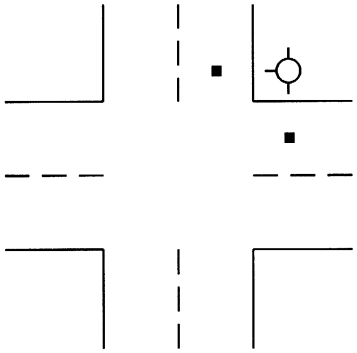


FIGURE 4
FOUR LANE STREET WITH TURN LANE AT INTERSECTION

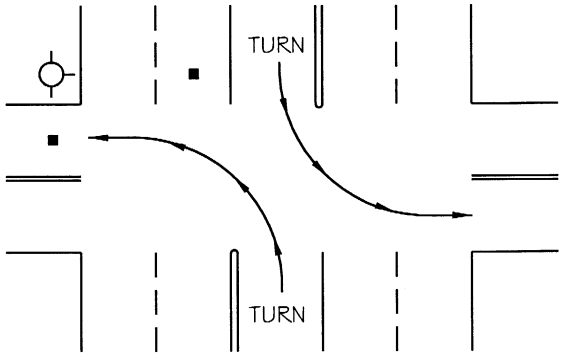


FIGURE 5
TWO LANE STREET AT INTERSECTION

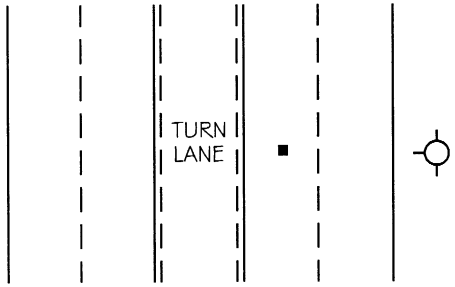


FIGURE 6
FREEWAYS AND EXPRESSWAYS

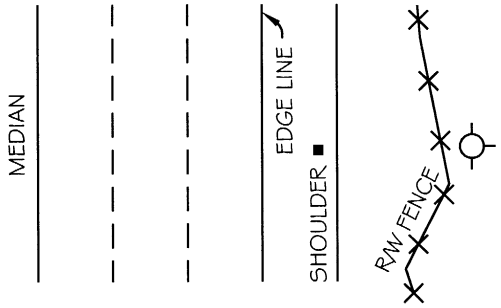
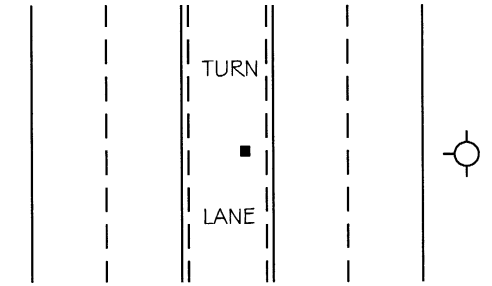


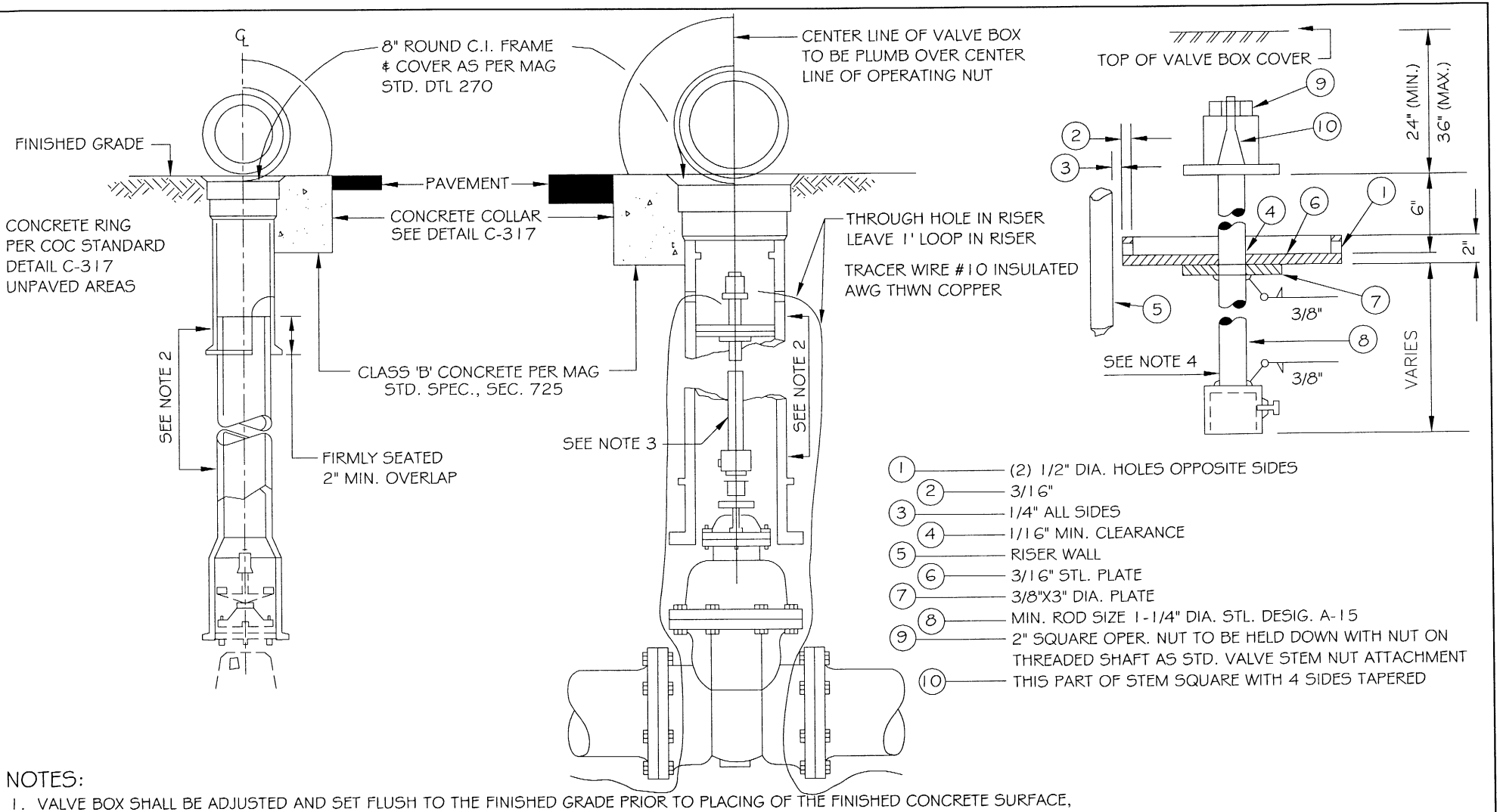
FIGURE 7
STATE HIGHWAY MULTI-LANE STREET WITH TURN LANE



NOTES:

1. ALL MARKERS TO BE STIMSONITE MODEL 911AB (BLUE) OR APPROVED EQUAL.
2. MARKERS TO BE LOCATED IN CENTER OF LANE EXCEPT FIGURES 6 AND 7 WHICH WILL BE LOCATED 1 FOOT FROM EDGE OF LANE.
3. FOR 4 LANE OR 6 LANE STREETS WITH MEDIAN, PLACE THE MARKER IN THE CENTER OF THE INSIDE THRU LANE.

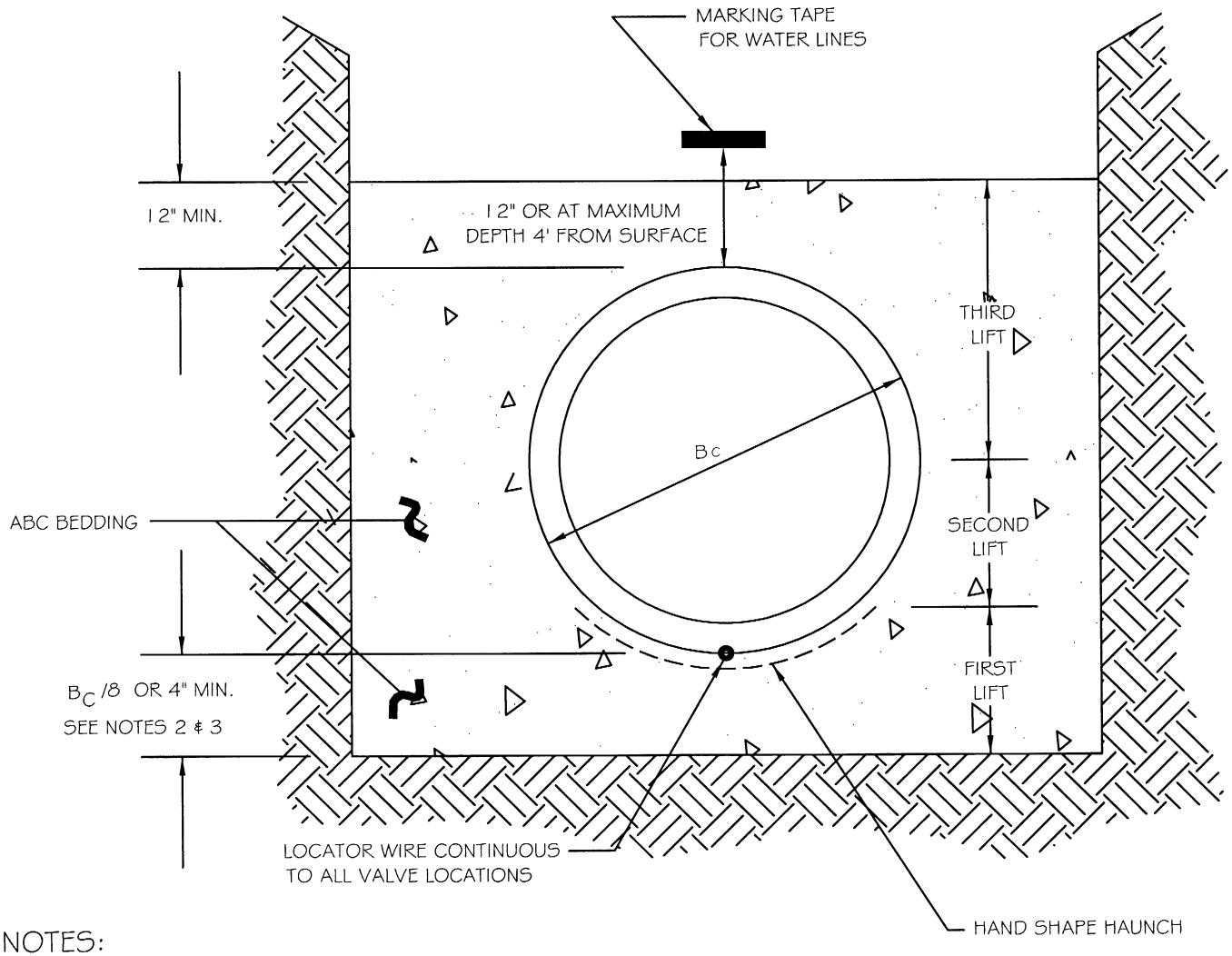
C-306 **REPLACES** **101**	CITY OF CHANDLER STANDARD DETAIL	**FIRE HYDRANT REFLECTOR LOCATIONS**	APPROVED: Elizabeth Hobbs CITY ENGINEER DATE: 2/26/07	DETAIL NO. **C-306** NTS



NOTES:

1. VALVE BOX SHALL BE ADJUSTED AND SET FLUSH TO THE FINISHED GRADE PRIOR TO PLACING OF THE FINISHED CONCRETE SURFACE, AND ON ALL ROADS THE SW SERVICES POLYMER LID (SWSPL) SHALL BE USED.
2. USE PARKSON TYLOR, APCO, OR EQUAL DEEP SKIRTED LID (4" OR MORE) TYPE, SLIDING ADJUSTABLE CAST IRON VALVE BOX. CI. MIN. T.S. 30,000 P.S.I.
3. EXTENSION STEM WITH SQUARE SOCKET TO FIT 2" SQUARE VALVE NUT. EXTENSION TO VALVE STEMS REQUIRED ON ALL VALVES INSTALLED WHERE OPERATING NUT IS OVER 5' BELOW SURFACE. LENGTH TO FIT EACH INSTALLATION. OPERATING NUT TO BE HELD ON TOP OF EXTENSION WITH STOP NUT.
4. STEM PAINTING: ALL STEEL TO HAVE PRIME COAT OF PAINT NO. 1-D AND ONE HEAVY APPLICATION (FINISH COAT) OF PAINT NO. 9 AS PER MAG STANDARD SPECIFICATIONS SEC. 790.
5. ALL BACKFILL MATERIAL PLACED AS PART OF THE FINAL VALVE BOX ADJUSTMENT SHALL BE A.B.C. 1-SACK SLURRY AS PER COC STANDARD SPECIFICATION 3.

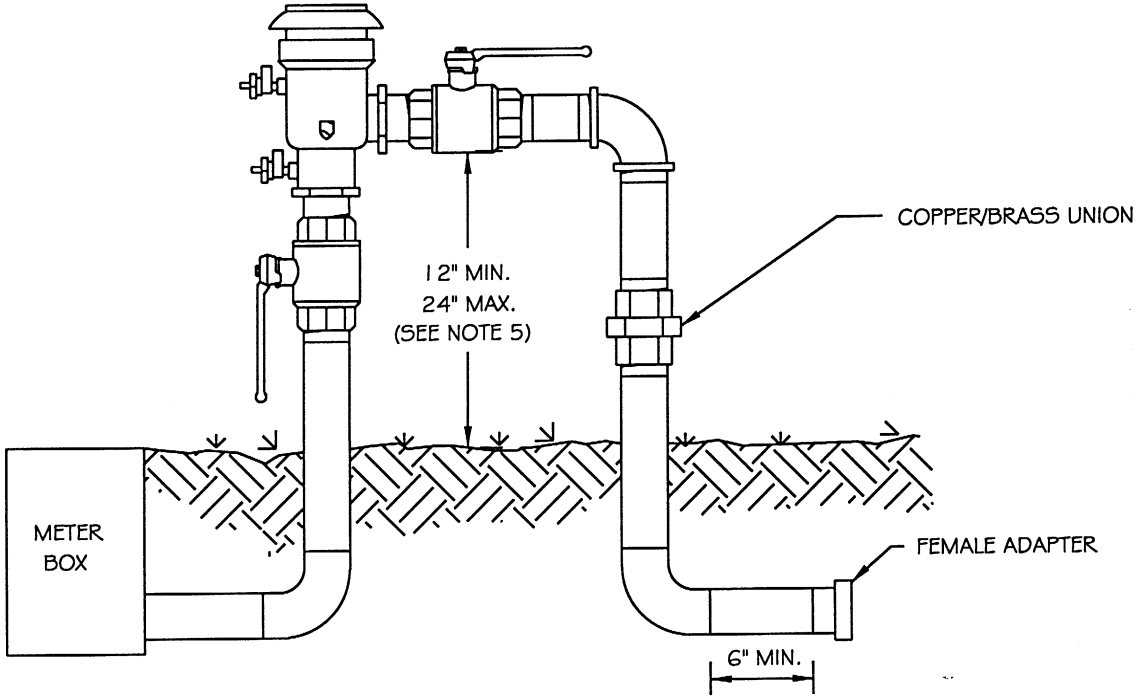
C-307 **REPLACES** **51**	CITY OF CHANDLER STANDARD DETAIL	**VALVE BOX INSTALLATION (POTABLE WATER)**	APPROVED _____ CITY ENGINEER DATE January 11, 2002	DETAIL NO. **C-307** NTS



NOTES:

1. TRENCH WIDTH IN ACCORDANCE WITH MAG STD. TABLE 601-1.
2. MINIMUM 4" FOR PIPES 12" OR SMALLER.
3. MINIMUM 6" FOR PIPES LARGER THAN 12".

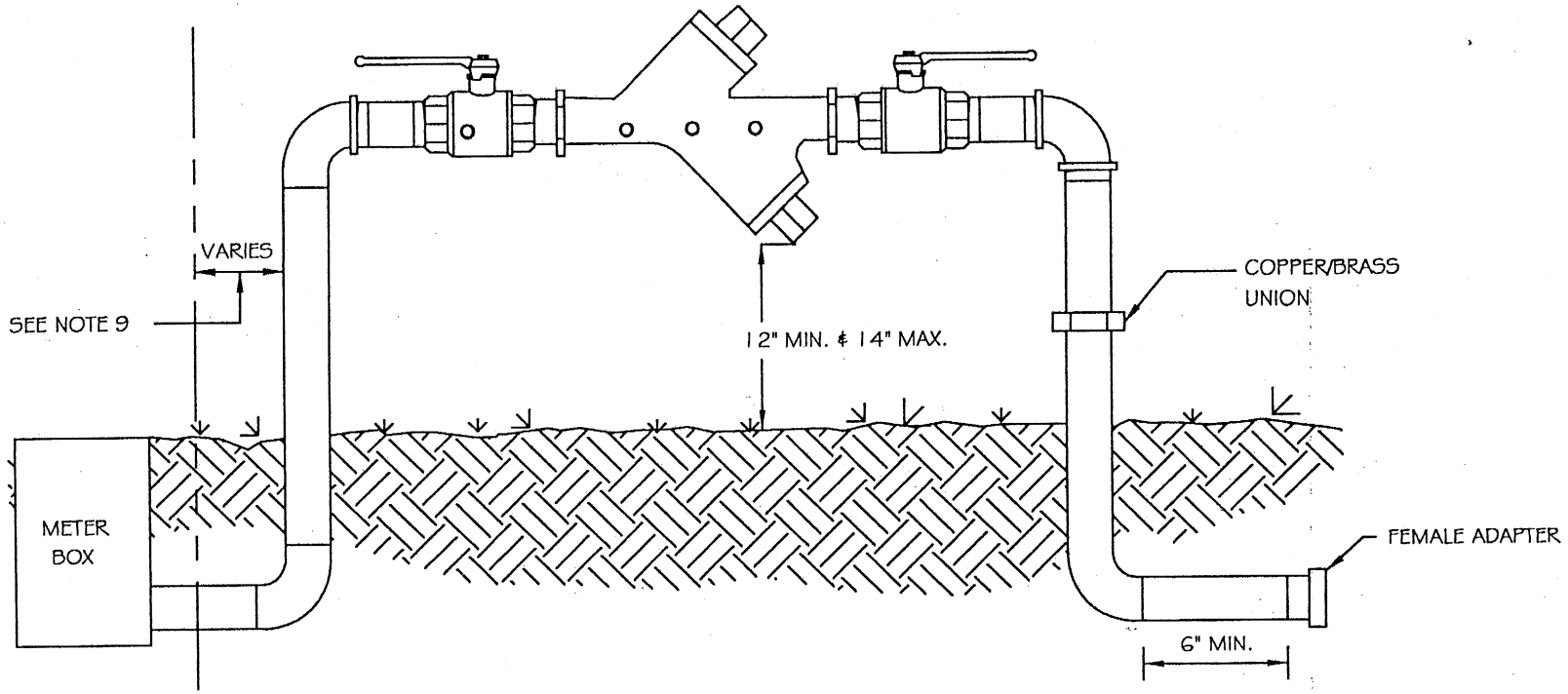
DETAIL NO. C-308 NTS	CITY OF CHANDLER STANDARD DETAIL	**PVC WATER PIPE BEDDING DETAIL**	APPROVED: CITY ENGINEER DATE: January 11, 2002	DETAIL NO. C-308 NTS



NOTES:

1. LIST OF LATEST APPROVED ASSEMBLIES ON FILE AT ENGINEERING. COPIES AVAILABLE.
2. ASSEMBLY SHALL BE APPROVED BY UNIVERSITY OF SOUTHERN CALIFORNIA (USC) FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
3. SHUT OFF BALL VALVES MUST BE RESILIENT SEATED VALVES AS PER UNIVERSITY OF SOUTHERN CALIFORNIA (USC).
4. ASSEMBLY MUST BE INSTALLED 12 INCHES ABOVE THE HIGHEST OUTLET ON THE SYSTEM. IF THIS DISTANCE EXCEEDS 24 INCHES A REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY, DETAIL C-311, MUST BE USED.
5. ALL PIPE/FITTINGS TO BE TYPE 'K' RIGID COPPER.
6. A MINIMUM OF ONE COPPER/BRASS UNION MUST BE INSTALLED IN THE MIDDLE OF THE DOWNSTREAM RISER.

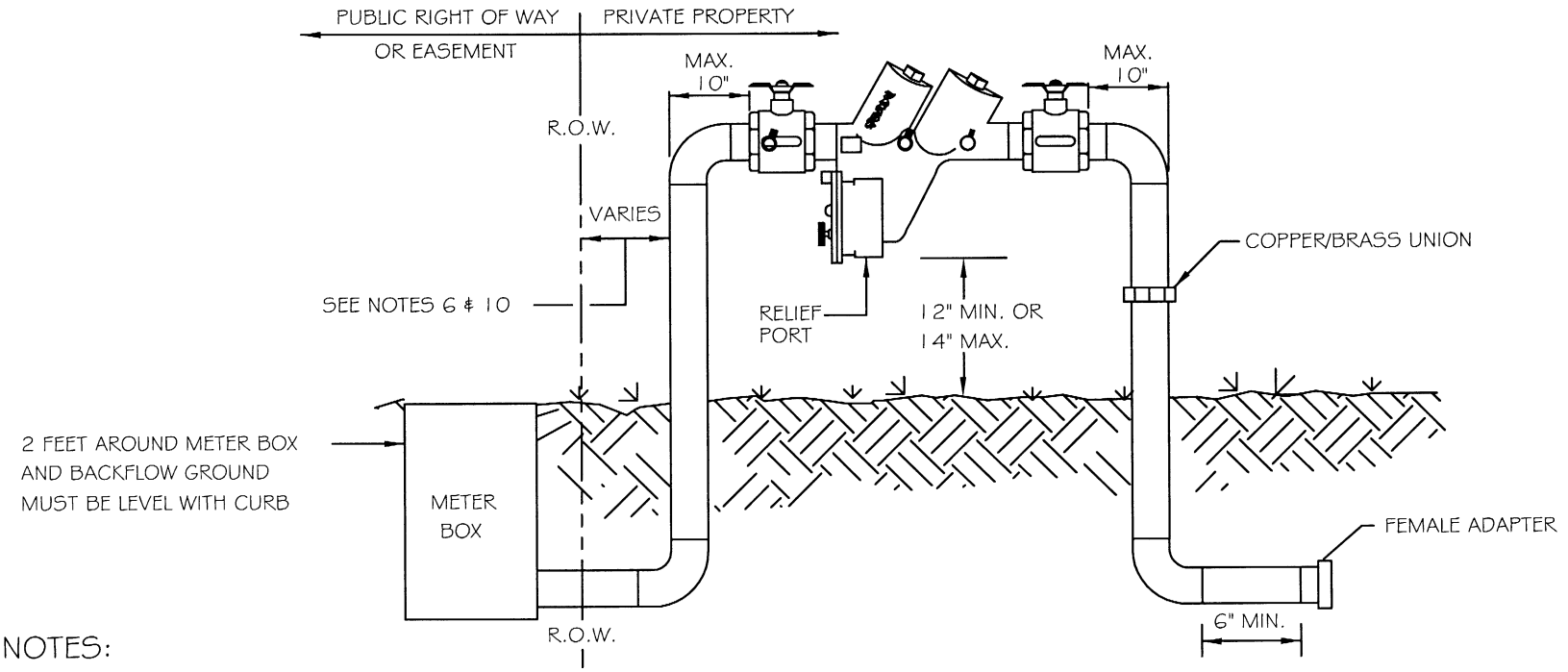
C-309 **REPLACES** **88**	CITY OF CHANDLER STANDARD DETAIL	**PRESSURE VACUUM BREAKER ASSEMBLY** **INSTALLATION - 2" AND UNDER**	APPROVED: Roger D. Patterson CITY ENGINEER DATE: 11-19-99	DETAIL NO. **C-309** NTS



NOTES:

1. ALL PIPE/FITTINGS TO BE TYPE "K" RIGID COPPER.
2. LIST OF LATEST APPROVED ASSEMBLIES ON FILE AT ENGINEERING. COPIES AVAILABLE.
3. BACKFLOW PREVENTION ASSEMBLY MUST BE LEVEL AND INSTALLED A MINIMUM OF 12 INCHES AND A MAXIMUM OF 14" FROM ASSEMBLY BODY TO FINAL GRADE.
4. TEST COCKS, (4), SHALL BE FITTED WITH BRASS PLUGS INSTALLED WITH TEFLON TAPE.
5. SHUTOFF VALVES TO BE RESILIENT BALL TYPE WITH REMOVABLE HANDLES.
6. COMPRESSION TYPE FITTINGS ARE NOT ALLOWED.
7. INSTALL THE BACKFLOW PREVENTION ASSEMBLY WITHIN 6 INCHES DOWNSTREAM OF THE LINESETTER AND THE CITY WATER METER.
8. A COPPER/BRASS UNION INSTALLED IN THE MIDDLE OF THE DOWNSTREAM RISER IS NOT REQUIRED IF BACKFLOW ASSEMBLY HAS UNIONS INCORPORATED WITHIN THE ASSEMBLY.
9. ASSEMBLY SHALL BE APPROVED BY UNIVERSITY OF SOUTHERN CALIFORNIA (USC) FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
10. ALL PIPE, RECLAIMED AND POTABLE, SHALL BE INSTALLED WITH COPPER TRACING WIRE AND ATTACHED TO EACH VALVE.

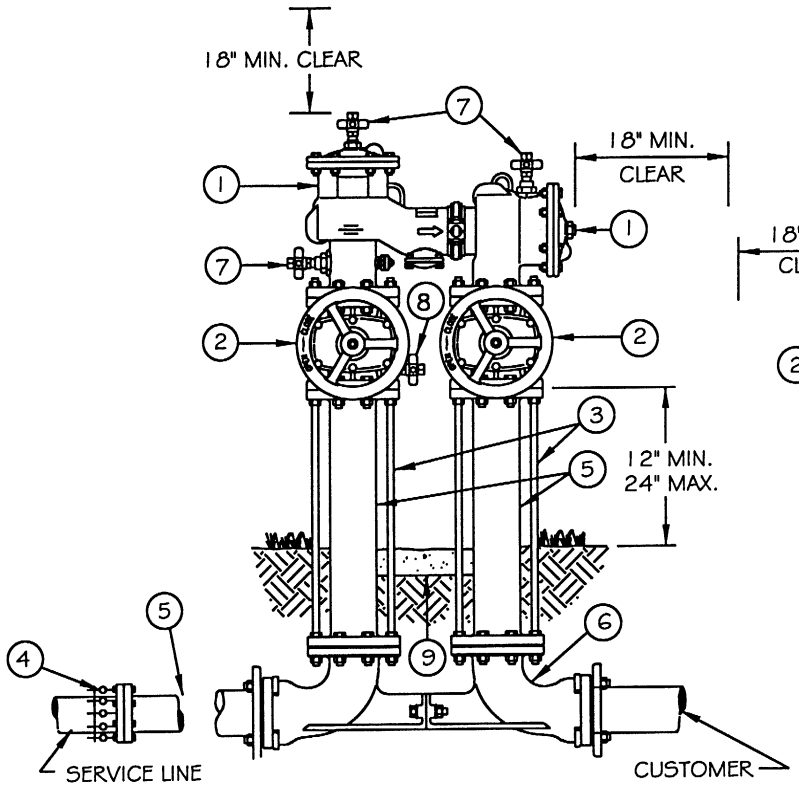
C-310 **REPLACES** **89**	CITY OF CHANDLER STANDARD DETAIL	**DOUBLE-CHECK VALVE BACKFLOW PREVENTION INSTALLATION - 3" AND UNDER**	APPROVED: Bryan D. Patterson CITY ENGINEER DATE: 11-19-99	DETAIL NO. **C-310** NTS



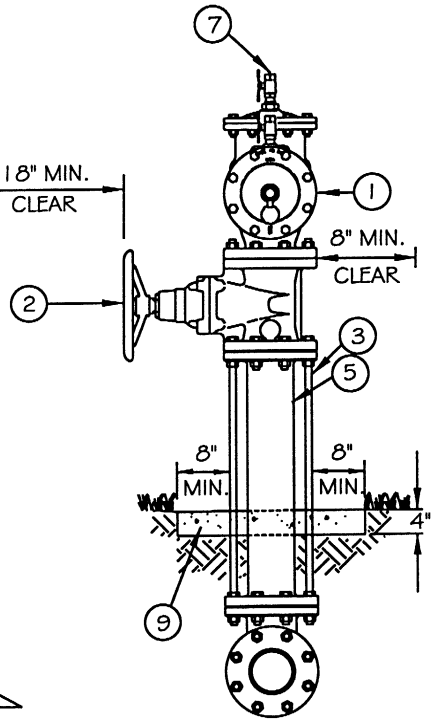
NOTES:

1. ALL PIPE/FITTINGS TO BE TYPE "K" RIGID COPPER.
2. INSTALL BACKFLOW PREVENTION ASSEMBLY WITH RELIEF PORT FACING TOWARD THE GROUND.
3. BACKFLOW PREVENTION INSTALLATION MUST BE LEVEL, AND INSTALLED A MINIMUM OF 12 INCHES AND A MAXIMUM OF 14 INCHES FROM RELIEF PORT TO FINAL GRADE.
4. SHUTOFF VALVES TO BE RESILIENT BALL TYPE WITH REMOVABLE HANDLES.
5. COMPRESSION TYPE FITTINGS ARE NOT ALLOWED.
6. INSTALL THE BACKFLOW PREVENTION ASSEMBLY IMMEDIATELY DOWNSTREAM OF THE LINE SETTER AND WITHIN 6" OF THE CITY WATER METER.
7. A COPPER/BRASS UNION INSTALLED IN THE MIDDLE OF THE DOWNSTREAM RISER IS NOT REQUIRED IF BACKFLOW ASSEMBLY HAS UNIONS INCORPORATED WITHIN THE ASSEMBLY.
8. LIST OF LATEST APPROVED ASSEMBLIES ON FILE AT ENGINEERING. COPIES AVAILABLE.
9. ASSEMBLY SHALL BE APPROVED BY UNIVERSITY OF SOUTHERN CALIFORNIA (USC) FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
10. THERE SHALL BE NO TAPS OF ANY SORT ALLOWED BETWEEN THE METER AND THE BACKFLOW PREVENTION ASSEMBLY.

C-311 **REPLACES** **90**	CITY OF CHANDLER STANDARD DETAIL	**REDUCED PRESSURE-PRINCIPLE BACKFLOW PREVENTION ASSEMBLY INSTALLATION - 3" AND UNDER**	APPROVED: CITY ENGINEER DATE: January 11, 2002	DETAIL NO. **C-311** NTS



FRONT VIEW



SIDE VIEW

LIST OF MATERIALS

1. APPROVED DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY. (DOUBLE CHECK DETECTOR ASSEMBLY INSTALLATION SIMILAR).
2. N.R.S. GATE VALVE.
3. 3/4" ZINC COATED THREADED ROD BOLTED TO FLANGES, BOTH SIDES TYPICAL EQUAL TENSION MINIMUM FOUR RODS, EVENLY SPACED.
4. FLANGED ADAPTER, (WHEN REQUIRED).
5. PIPE SPOOL. (FLANGED DIP)
6. VALVE SETTER.
7. TEST COCKS, (3 REQUIRED) WITH BRASS PLUGS USING ONLY TEFLON TAPE.
8. TEST COCK WITH A STEEL 90° ELL WITH BRASS PLUG USING ONLY TEFLON TAPE.
9. 4" CLASS "B" CONCRETE PER MAG STANDARD SPECIFICATIONS 725.

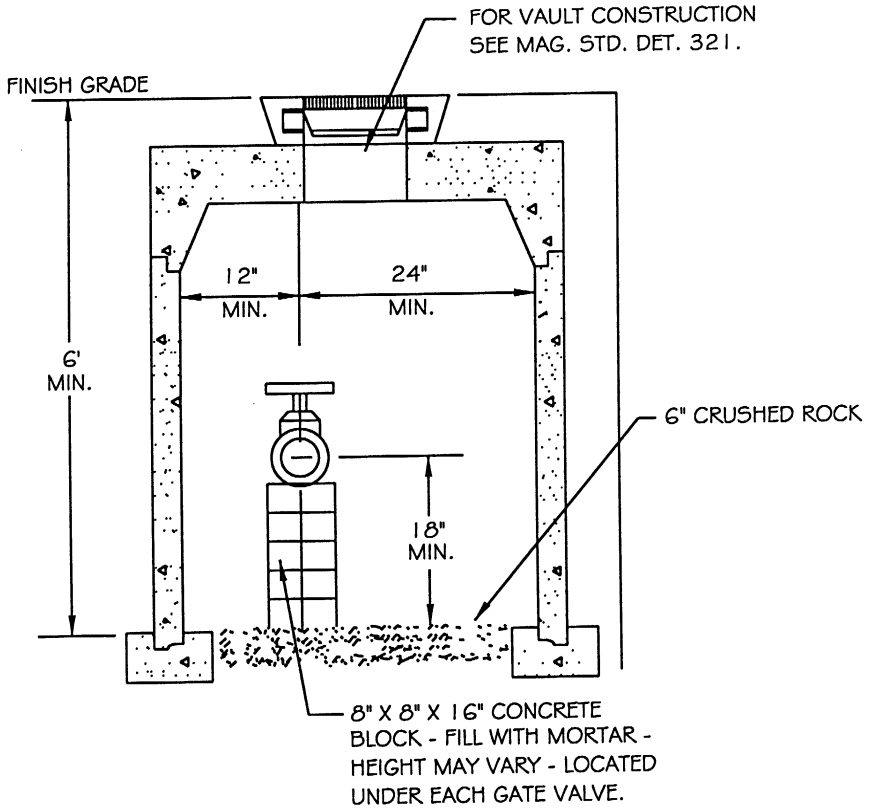
SCREENING METHOD

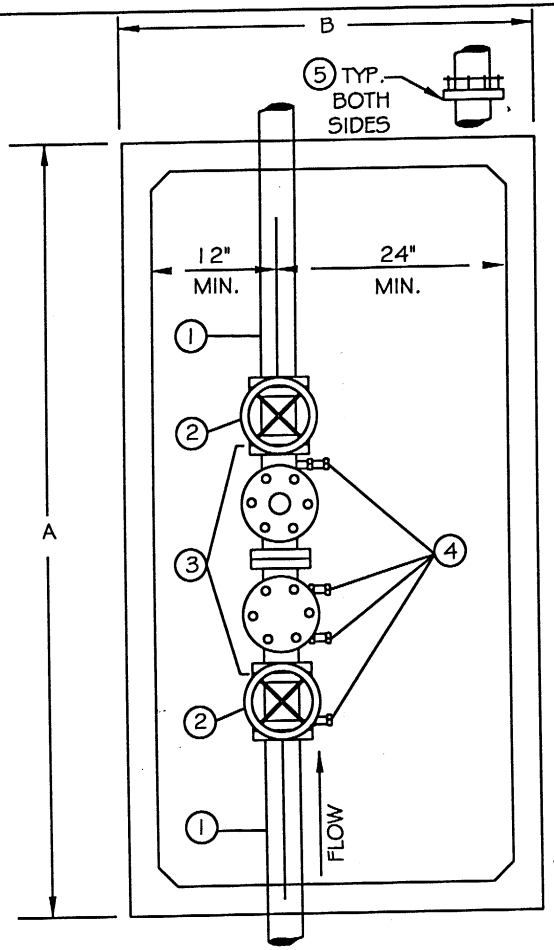
1. SCREEN WALLS, PLANT MATERIAL BERMING AND/OR BUILDING ORIENTATION SHALL BE SUBMITTED TO DEVELOPMENT SERVICES FOR REVIEW AND APPROVAL PRIOR TO START OF CONSTRUCTION.
2. METHOD OF SCREENING USED MAY REQUIRE FDC'S TO BE REMOTELY LOCATED. FDC LOCATION AND METHOD OF INSTALLATION SHALL BE INCLUDED ON SCREENING PLAN SUBMITTED TO DEVELOPMENT SERVICES FOR REVIEW AND APPROVAL.

NOTES:

1. LIST OF LATEST APPROVED ASSEMBLIES ON FILE AT ENGINEERING. COPIES AVAILABLE.
2. ASSEMBLY SHALL BE AS APPROVED BY UNIVERSITY OF SOUTHERN CALIFORNIA (USC) FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
3. ABOVE GROUND PORTION OF ASSEMBLY TO BE PAINTED LIGHT TAN OR EQUIVALENT BACKGROUND COLOR.

C-312 REPLACES 91A	CITY OF CHANDLER STANDARD DETAIL	**DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY 2 1/2", 4", 6", 8" 10" PRIVATE DOMESTIC WATER MAIN**	APPROVED: Bryan D. Patterson CITY ENGINEER DATE: 11-19-99	DETAIL NO. **C-312** NTS





○ LEGEND:

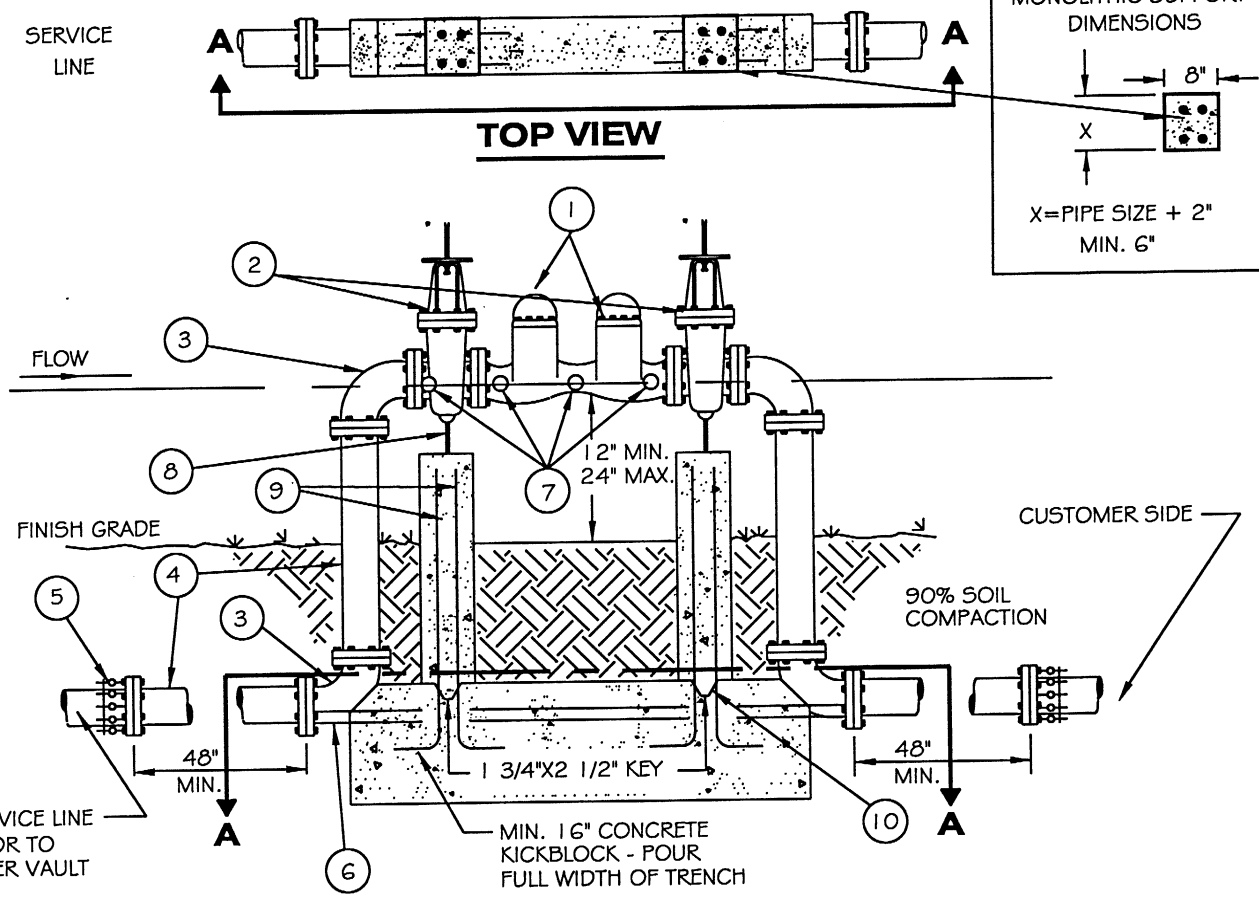
1. PIPE SPOOL (FLANGED D.I.P.)
2. O. S. & Y. GATE VALVE (FIRE LINE CONNECTION).
   N. R. S. GATE VALVE (NON FIRE LINE CONNECTION).
3. APPROVED DOUBLE CHECK ASSEMBLY.
4. TEST COCKS (4 REQUIRED, SHALL BE FITTED WITH BRASS PLUGS).
5. FLANGED ADAPTER (WHEN REQUIRED), ONE ADAPTER MUST BE LOCATED INSIDE VAULT.

NOTE:
VAULT TOP TO BE EQUIPPED WITH A 36" X 36" HINGED AND SPRING LOCKED STEEL TORSION DOOR.

VAULT DIMENSION TABLE

ASSEMBLY SIZE	3" & 4"	6"	8"	10"
(A)	7'-4"	8'-8"	10'-8"	12'-0"
(B)	5'-4"	6'-8"	7'-4"	7'-4"

C-313 **REPLACES** **92**	CITY OF CHANDLER STANDARD DETAIL	**DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY VAULT INSTALLATION**	APPROVED: Roger D. Peterson CITY ENGINEER DATE: 11-19-99	DETAIL NO. **C-313** NTS



SIDE VIEW

LIST OF MATERIALS

1. APPROVED DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY. (DOUBLE CHECK DETECTOR ASSEMBLY INSTALLATION SIMILAR).
2. O.S.&Y. GATE VALVE, N.R.S. GATE VALVE, IF PREFERRED.
3. 90° ELL. (FLANGED D.I.P.)
4. PIPE SPOOL (FLANGED D.I.P.)
5. FLANGED ADAPTER (WHEN REQUIRED).
6. 3/4" ZINC COATED THREADED ROD, BOLTED TO FLANGES AS SHOWN, BOTH SIDES TYPICAL EQUAL TENSION.
7. TEST COCKS (4 REQUIRED WITH BRASS PLUGS USING ONLY TEFLON TAPE.)
8. ADJUSTABLE PIPE SUPPORT MUST BE PERMANENTLY ATTACHED TO BASE, 6" MAXIMUM HEIGHT.
9. #6 REINFORCING STEEL, DEFORMED BAR, 4" APART, EVENLY SPACED.
10. CONSTRUCTION JOINT KEY TO BE 1 3/4" X 2 1/2".

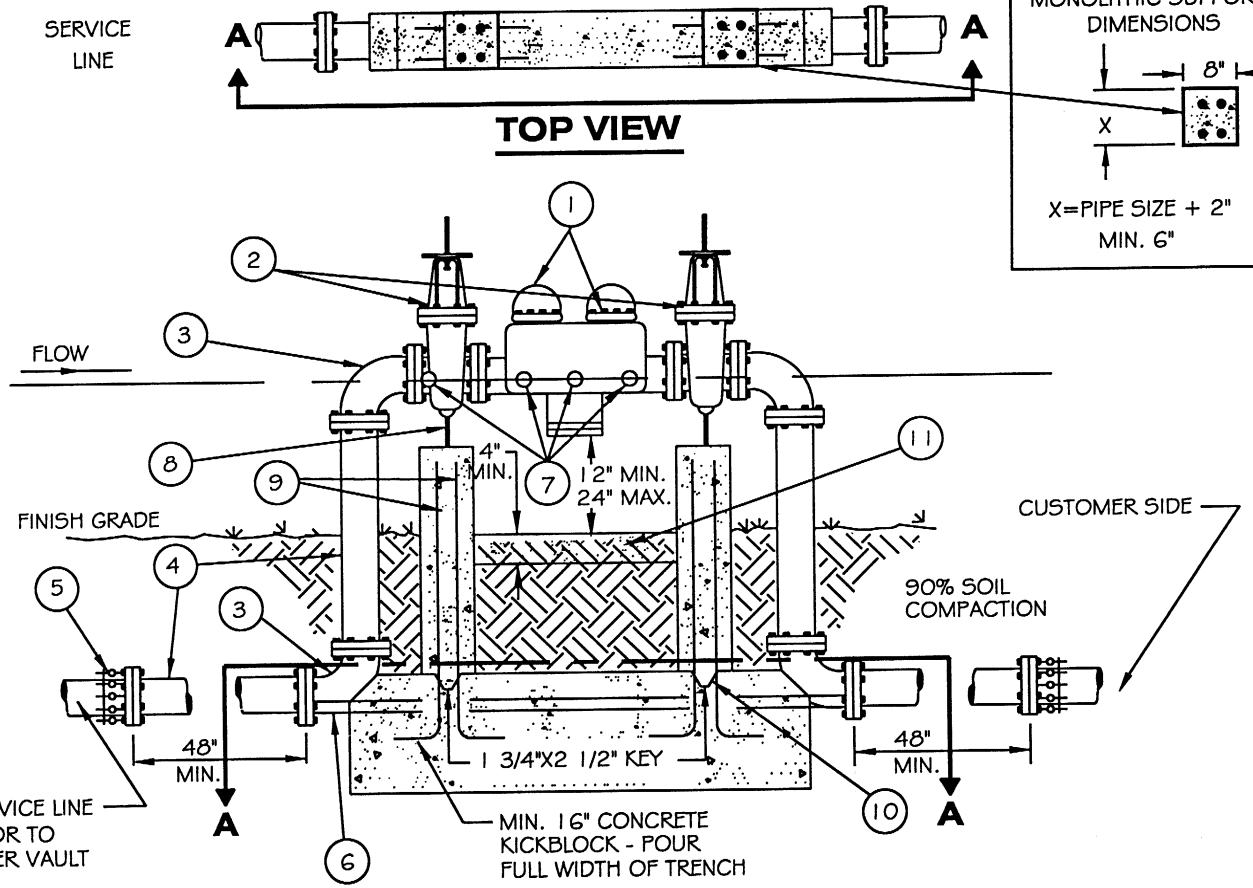
SCREENING METHOD

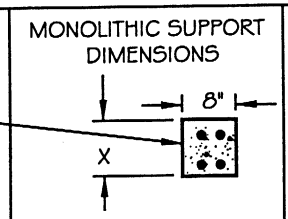
1. SCREEN WALLS, PLANT MATERIAL, BERMING AND/OR BUILDING ORIENTATION SHALL BE SUBMITTED TO DEVELOPMENT SERVICES FOR REVIEW AND APPROVAL PRIOR TO START OF CONSTRUCTION.

NOTES:

1. LIST OF LATEST APPROVED ASSEMBLIES ON FILE AT ENGINEERING. COPIES AVAILABLE.
2. ASSEMBLY SHALL BE AS APPROVED BY UNIVERSITY OF SOUTHERN CALIFORNIA (USC) FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
3. ABOVE GROUND PORTION OF ASSEMBLY TO BE PAINTED LIGHT TAN OR EQUIVALENT BACKGROUND COLOR.

C-314 **REPLACES** **91**	CITY OF CHANDLER STANDARD DETAIL	**DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY 3", 4", 6", 8", 10"**	APPROVED: CITY ENGINEER DATE: 11-19-99	DETAIL NO. **C-314** NTS





LIST OF MATERIALS

1. APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY.
2. O.S.&Y. GATE VALVE, N.R.S. GATE VALVE, IF PREFERRED.
3. 90° ELL. (FLANGED D.I.P.)
4. PIPE SPOOL (FLANGED D.I.P.)
5. FLANGED ADAPTER (WHEN REQUIRED).
6. 3/4" ZINC COATED THREADED ROD, BOLTED TO FLANGES AS SHOWN, BOTH SIDES TYPICAL EQUAL TENSION
7. TEST COCKS (4 REQUIRED WITH BRASS PLUGS USING ONLY TEFLON TAPE.)
8. ADJUSTABLE PIPE SUPPORT MUST BE PERMANENTLY ATTACHED TO BASE, 6" MAXIMUM HEIGHT.
9. #6 REINFORCING STEEL, DEFORMED BAR, 4" APART, EVENLY SPACED.
10. CONSTRUCTION JOINT KEY TO BE 1 3/4" X 2 1/2".
11. 4" CONCRETE SPLASH PAD.

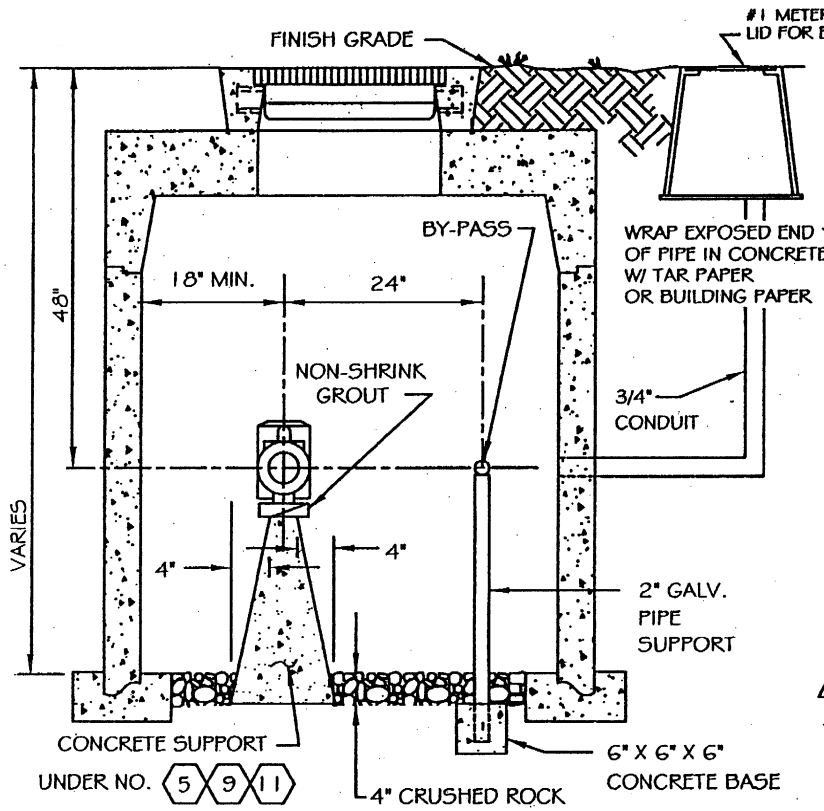
SCREENING METHOD

1. SCREEN WALLS, PLANT MATERIAL, BERMING AND/OR BUILDING ORIENTATION SHALL BE SUBMITTED TO DEVELOPMENT SERVICES FOR REVIEW AND APPROVAL PRIOR TO START OF CONSTRUCTION.

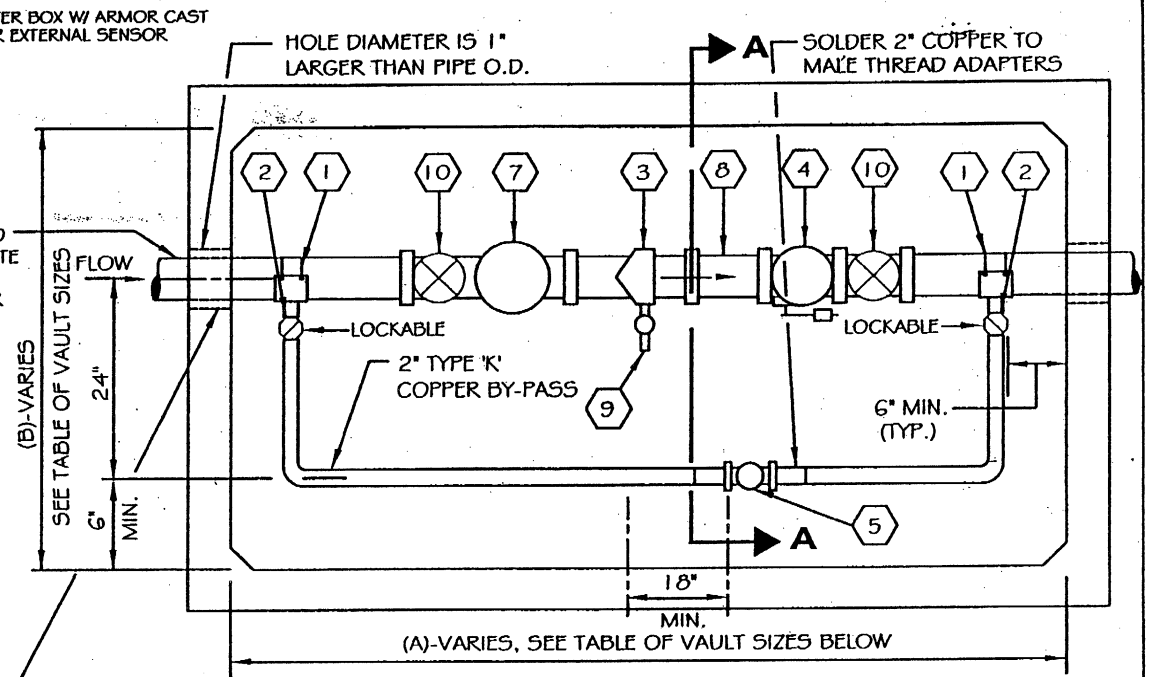
NOTES:

1. LIST OF LATEST APPROVED ASSEMBLIES ON FILE AT ENGINEERING. COPIES AVAILABLE.
2. ASSEMBLY SHALL BE AS APPROVED BY UNIVERSITY OF SOUTHERN CALIFORNIA (USC) FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
3. ABOVE GROUND PORTION OF ASSEMBLY TO BE PAINTED LIGHT TAN OR EQUIVALENT BACKGROUND COLOR.

C-315 **REPLACES** **93**	CITY OF CHANDLER STANDARD DETAIL	**REDUCED PRESSURE PRINCIPLE ASSEMBLY** **3", 4", 6", 8", 10"**	APPROVED: Bryan D. Patterson CITY ENGINEER DATE: 11-19-99	DETAIL NO. **C-315** NTS



SECTION A-A



VAULT DIMENSION TABLE			
PIPE SIZE	3"	4"	6"
(A)	8'-4"	10'-6"	12'
(B)	4'-4"	5'	5'

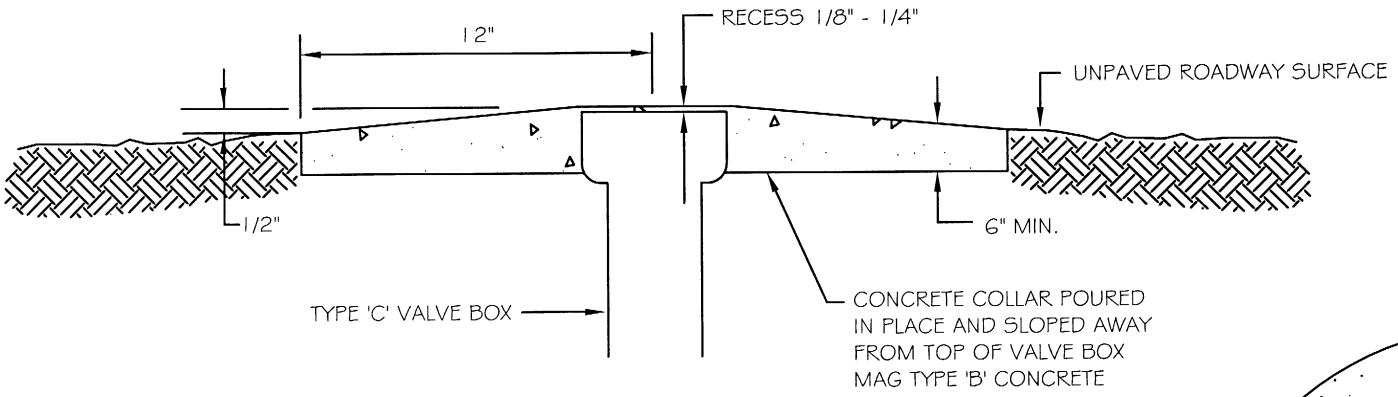
NOTES:

1. METER VAULTS MAY BE EITHER CAST-IN-PLACE OR PRE-CAST CONCRETE. SEE MAG STANDARD DETAIL 321 FOR VAULT CONSTRUCTION.
2. FOR LARGER THAN 6" METERS SPECIAL VAULT DESIGN IS REQUIRED.
3. STAINLESS BOLTS AND NUTS REQUIRED FOR ENTIRE ASSEMBLY.
4. MAIN LINE METERS SHALL BE EQUIPPED WITH AN "ITRON ERT UNIT" LOCATED SEPARATELY IN A #1 BOX W/ AMORCAST LID FOR EACH METER AND TO BE CONNECTED BY 3/4" CONDUIT.
5. CURB STOP TO NORMALLY BE CLOSED.

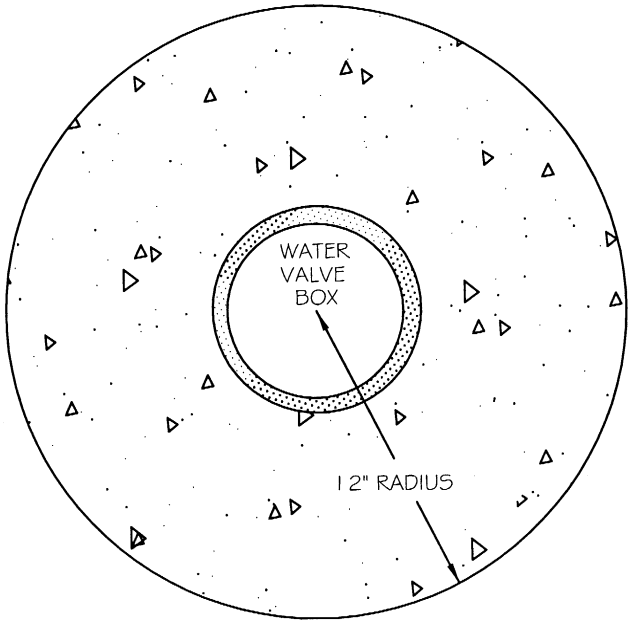
LEGEND:

1. DOUBLE STRAP ALL BRONZE SERVICE SADDLES.
2. 2" CURB STOP WITH BRONZE OR BRASS BODY, LOCKABLE.
3. THREE INCH AND GREATER COMPOUND METERS SHALL BE ONE OF THE FOLLOWING AND INSTALLED BY CONTRACTOR: A. BADGER WITH RTR REGISTER/ITRON ERT SIGNAL UNIT, B. SENSUS WITH ECRW.P REGISTER/ITRON ERT SIGNAL UNIT, C. SCHLUMBERGER WITH PROREAD REGISTER/ITRON ERT SIGNAL UNIT.
4. FLANGED SWING CHECK VALVE WITH EXTERNAL LEVER AND WEIGHT.
5. 2" BRONZE CHECK VALVE. (LOW ZINC)
6. NOT USED
7. 6" OR LARGER STRAINER, U.L. APPROVED. (NO CIP)
8. FLANGED SPOOL. (3 PIPE DIAMETERS IN LENGTH)
9. 2" BALL VALVE WITH BRONZE OR BRASS BODY, STAINLESS STEEL BALL AND TEFLON SEATS.
10. O.S. & Y. GATE VALVE, FLANGED WITH HAND WHEEL OPEN LEFT, AND RISING STEM.

C-316 REPLACES 100A & B	CITY OF CHANDLER STANDARD DETAIL	3" TO 6" WATER METER	APPROVED: CITY ENGINEER DATE: January 11, 2002	DETAIL NO. C-316 NTS

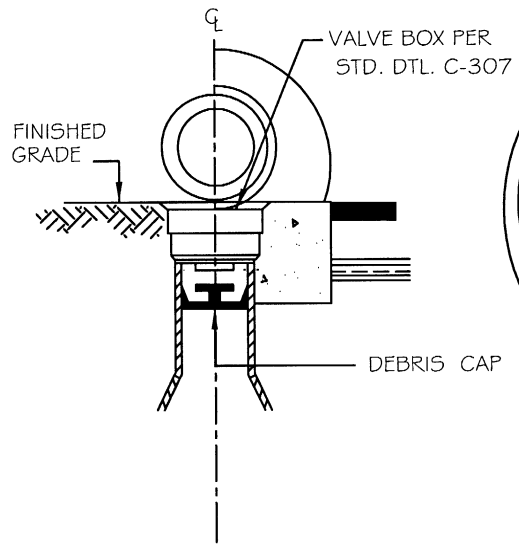


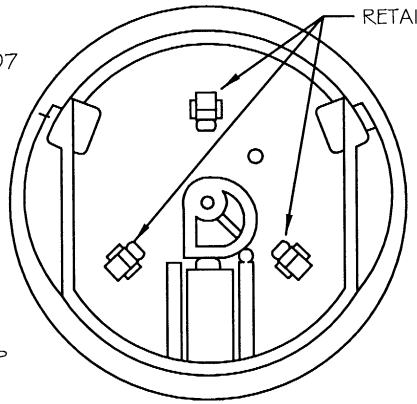
SIDE VIEW



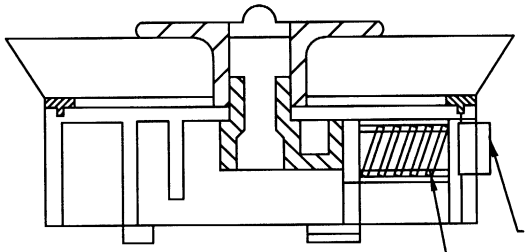
TOP VIEW

C-317 **REPLACES** **52**	CITY OF CHANDLER STANDARD DETAIL	**CONCRETE COLLAR DETAIL** **WATER VALVE BOX PLACEMENT** **UNPAVED AREAS**	APPROVED: Elizabeth McMahon CITY ENGINEER DATE: January 11, 2002	DETAIL NO. **C-317** NTS

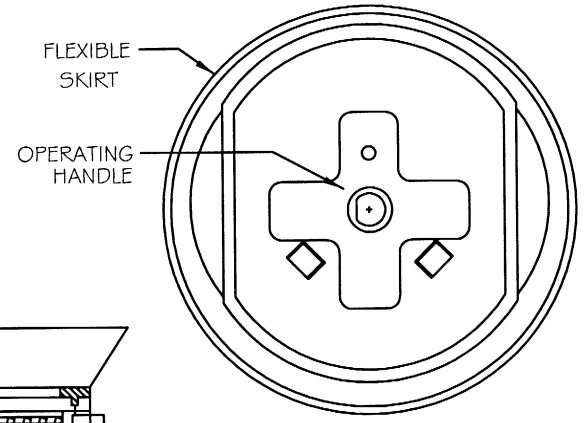




BOTTOM VIEW



SECTION VIEW

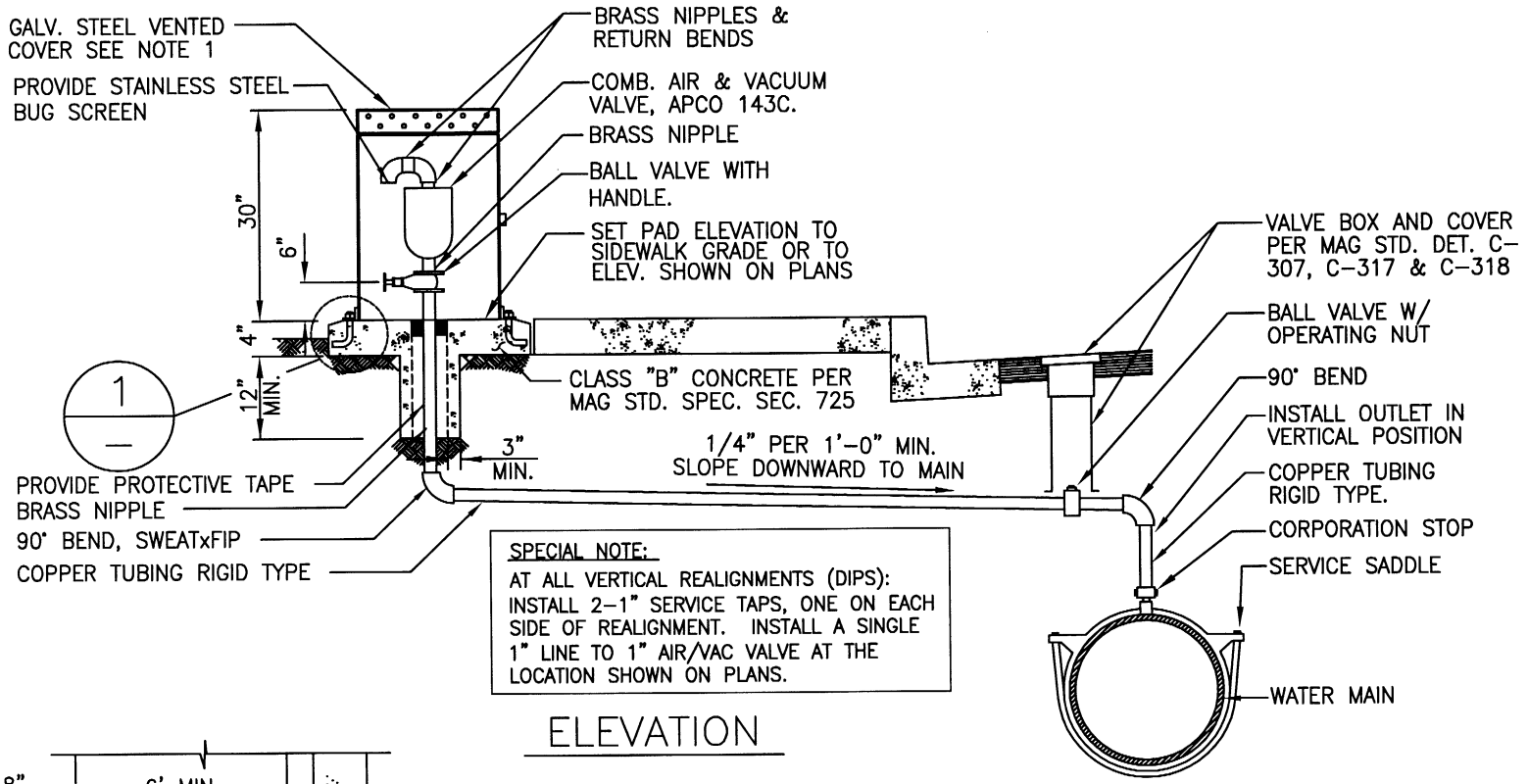


TOP VIEW

NOTES:

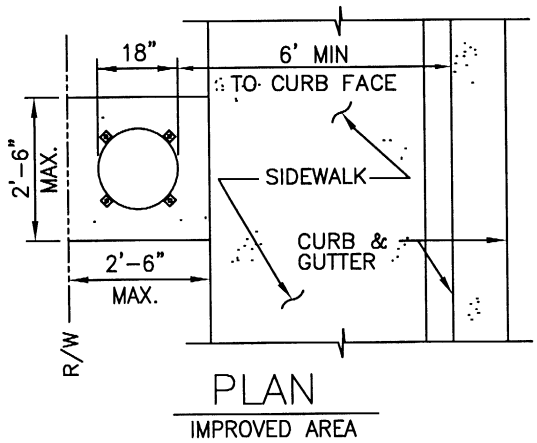
1. DEBRIS CAP SHALL BE INSTALLED AS CLOSE AS POSSIBLE UNDER THE CAST IRON COVER WITHOUT INTERFERING WITH COVER OPERATION.
2. FLEXIBLE SKIRT SHALL BE TRIMMED TO PROVIDE A SMOOTH CONTACT WITH THE INTERIOR DIAMETER OF THE PIPE.
3. THE DEBRIS CAP SHALL BE MANUFACTURED BY SW SERVICES, INC., PHOENIX, ARIZONA OR APPROVED EQUAL.
4. THE DEBRIS CAP SHALL BE COMPRISED OF A HOLLOW MEMBER HAVING A CYLINDRICAL OUTER SURFACE, A CLOSURE FOR ONE END AND THREE POINT RESILIENT CONTACT PADS PROJECTING FROM THE OUTER SURFACE. THE CAP SHALL HAVE A FLEXIBLE SKIRT PROVIDING AN OUTWARD SEAL PREVENTING DEBRIS FROM GETTING PAST THE CAP. CAP MUST WITHSTAND, WITHOUT SLIPPAGE, A MINIMUM VERTICAL FORCE OF 50 POUNDS, AT A LOADING RATE OF 1.0 IN/MINUTE. THE CAP SHALL BE MOLDED USING GENERAL ELECTRIC ABS #HIM 4500. THE CAP SHALL HAVE RETAINING PRONGS TO RETAIN A STANDARD LOCATING COIL.
5. THE CAP SHALL BE MANUFACTURED OF CORROSIVE RESISTANT MATERIALS.
6. THE CAP SHALL BE CAPABLE OF SECURELY HOLDING A STANDARD LOCATING COIL, "SCOTCH MARK" 4 DISK MARKER BY 3M OR EQUAL.
7. THE CAP SHALL BE CONSTRUCTED TO ALLOW THE DEVICE TO BE SECURED BY A LOCK. THE LOCK (PAD, BARREL, ETC.) SHALL BE SUPPLIED BY THE AGENCY.
8. THE HANDLE AND/OR BODY OF THE CAP SHALL BE INTEGRALLY COLORED IF REQUIRED BY THE AGENCY. IF REQUIRED THE COLOR SHALL CONFORM TO THE ON CALL LOCATING SERVICE (BLUE STAKE) COLORS (ARS 40-360.21).
9. THE CAP SHALL BE INSTALLED IN ALL VALVE HOUSINGS AS REQUIRED BY THE CONTRACT DOCUMENTS OR BY THE AGENCY'S POLICIES.

C-318 **REPLACES** **49**	CITY OF CHANDLER STANDARD DETAIL	**DEBRIS AND LOCKING CAP**	APPROVED: CITY ENGINEER DATE: January 11, 2002	DETAIL NO. **C-318** NTS



SPECIAL NOTE:
AT ALL VERTICAL REALIGNMENTS (DIPS): INSTALL 2-1" SERVICE TAPS, ONE ON EACH SIDE OF REALIGNMENT. INSTALL A SINGLE 1" LINE TO 1" AIR/VAC VALVE AT THE LOCATION SHOWN ON PLANS.

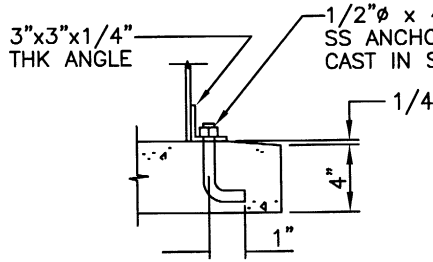
ELEVATION



PLAN
IMPROVED AREA

NOTES

1. PAINT COVER WITH TNEMEC EDUROSHIELD PER MANUFACTURERS INSTRUCTIONS. COLOR SHALL BE DESERT TAN. 12 MILS DFT.
2. IN UNIMPROVED AREAS, PLACEMENT OF THE AIR/VAC VALVE IS TO BE 10' FROM THE EDGE OF PAVMENT. SET PAD ELEVATION 2" ABOVE ADJACENT GROUND.
3. FOR RECLAIMED WATER APPLICATIONS THE WORDS: "CAUTION: RECLAIMED WATER DO NOT DRINK" SHALL BE STENCILED WITH 3/4" LETTER IN PURPLE (PANTONE 512). ON A WHITE BACKGROUND.



DETAIL 1

DETAIL NO. C-319 NTS	CITY OF CHANDLER STANDARD DETAIL	**2"COMBINATION AIR/VACUUM VALVE ASSEMBLY**	APPROVED: Elizabeth McGrath CITY ENGINEER DATE: January 11, 2002	DETAIL NO. C-319 NTS